

SUPPORT FOR THE AMENDMENT

This Amendment amends Claims 43-45 and 47. Support for the amendments is found in the specification and claims as originally filed. It is believed that no new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 43-59 will be pending in this application.

Claims 43, 44, 45 and 47 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention provides a material for purification of a semiconductor polishing slurry.

Claims 43-59 are rejected under 35 U.S.C. §103(a) over EP 1179627 ("Nambu").

The Final Rejection at section 4, lines 2-4, asserts:

Nambu discloses a material for purification of industrial wastewater comprising substantially all of the subject matter set forth in Applicant's claims above.

Nambu discloses

[0008] ... [A] first object of the present invention is **to provide a metal chelate forming fiber that has satisfactory capturing capability of harmful heavy metal ions, can be easily discarded and incinerated, moreover, can be produced at low cost in a simple and safe manner.** ...

[0009] A third object of the present invention is to provide a method of **easily and efficiently capturing metal ions contained in trace amounts**, for example, in an aqueous or ... by the use of the metal chelate forming fiber. ... Additionally, a fourth object of the present invention is to provide a metal chelate fiber which is making use of **catalytic activites or antimicrobial activities of a variety of metals by allowing the metals** to be bonded by chelation to a surface of the metal chelate-forming fiber. Nambu at [0008] and [0009] (emphasis added)

Thus, Nambu discloses a "metal chelate forming fiber" which "has satisfactory capturing capability of harmful heavy metal ions".

On the other hand, independent Claim 43 (similar to independent Claims 44, 45 and 47) recites "a functional group capable of . . . , **which enables to maintain a main constituent of the acidic semiconductor polishing slurry**" (See specification at [0036]: "there is also a process that a change in pH of the purified polishing slurry can be controlled **while preventing a different type of acid or an alkali metal salt from increasing** by determining the end group of a functional group capable of forming a metal chelate in the chelate-forming fiber to be an acid type . . ."). Specifically, "a functional group" of independent Claims 43-45 and 47 enables to prevent a different type of acid or an alkali metal salt from increasing, i.e. enables to maintain a main constituent of the semiconductor polishing slurry.

In general, it is better to use a method of recycling by removing a very small amount of metal ions in the polishing slurry and purifying, without existence of any alkali metal ion such as sodium ion or potassium ions, because the removal efficiency of other metal ions subject to the removal drops considerably. (See specification at [0010]: "it is considered to employ a method of recycling by removing a very small amount of metal ions in the polishing slurry and purifying . . . if there are alkali metal ion such as sodium ion or potassium ions, the ion-exchange resin has a disadvantage that the removal efficiency of other metal ions subject to the removal drops considerably"). Based on this concept, independent Claims 43-45 and 47 recite "a functional group capable . . . , which enables to maintain a main constituent of the . . . semiconductor polishing slurry" to maintain the removal efficiency of the "other metal ions".

Nambu does not suggest "a functional group capable of . . . , which enables to maintain a main constituent of the acidic semiconductor polishing slurry" as required by Claims 43-45

and 47, but simply discloses "a metal chelate forming fiber that has satisfactory capturing capability of harmful heavy metal ions". Nambu does not suggest a concept of maintaining a main constituent of a semiconductor polishing slurry to maintain the removal efficiency at all.

Nambu at [0001] discloses that "**[t]he present invention relates to a novel metal chelate-forming fiber, ... [t]he metal chelate-forming fiber is capable of selectively and efficiently adsorbing metal ions in trace amounts, for example, in water, especially copper, zinc, nickel, cobalt and other harmful heavy metal ions even in a low pH region and can be extensively and effectively used for, for example, the purification of industrial waste water, drinking water and oil**". Nambu teaches the novel metal chelate-forming fiber that is widely used for the purification of industrial waste water etc.

On the other hand, independent Claims 43-45 and 47 recite "for purification of a semiconductor polishing slurry". In general, it is necessary for a semiconductor polishing process to control a constituent of a polishing slurry at very critical level, e.g. 0.01-1 ppb level. (See specification at [0007]: "it is said necessary to control the concentrations of copper, nickel and the like in the polishing slurry to 0.01 to 1 ppb").

Nambu does not suggest about this control of the constituent of a polishing slurry and the element recited in independent Claims 43-45 and 47 to control it, but simply discloses a metal chelate-forming fiber widely used for the purification of waste water. Nambu does not give any motivation to make independent Claims 43-45 and 47.

Because Nambu fails to suggest all the limitations of, or the concept of, independent Claims 43-45 and 47, the rejection under 35 U.S.C. §103(a) over Nambu"), should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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